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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,346	12/11/2001	Jean-Paul Michaut	P21328	8305

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EXAMINER

ADDIE, RAYMOND W

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 10/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/913,346

Applicant(s)

MICHAUT, JEAN-PAUL

Examiner

Raymond W. Addie

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 10-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. # 5,432,213.

Kim et al. discloses a bituminous draining road blanket comprising:

An upper layer (1) having a modified bituminous binder, aggregate of a 1<sup>st</sup> size, such as crushed stone, and filler material in an amount of 1-20% by weight.

A lower layer comprising a bituminous binder, an aggregate of a 2<sup>nd</sup> particle size, which is larger than the 1<sup>st</sup> particle size. See col. 3, line 5-42, col. 4, lines 19-63.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. # 5,432,213 in view of Mingot # 4,145,154.

Kim et al. discloses essentially all that is claimed, except for the aggregate size ratio between upper and lower layers. However, Mingot teaches a non-skid highway comprising an 1<sup>st</sup> and 2<sup>nd</sup> layers of asphaltic concrete, wherein the aggregate particle size is in the range of 12.5-14 mm corresponding to a 10/14 size distribution and the aggregate particle size of the 2<sup>nd</sup> layer is in the range of sand, known to have an 0/2-0/6 size distribution and stone chips in the range of 2/6. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the water-permeable roadway of Kim et al., with a plurality of layers having a discontinuity in particle size distribution in the range of 3:1-4:1 as taught by Mingot, in order to maximize the permeability of the roadway and minimize reducing resistance to wear. See Mingot Col. 2-4.

In regards to Claim 13, although neither Kim et al. nor Mingot specifically recite using 95% aggregate in the 4/6 range, Mingot does teach spreading separate layers of paving material, each having a different grading or granularity, for example 4/6 mm, 6/10 mm or 10/14 mm. Hence, it is obvious that Mingot contemplates forming at least one layer of paving material having a grading in the 4/6 range. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the water permeable roadway of Kim et al. with at least one layer of paving material in the range of 4/6 mm, as reasonably suggested by Mingot, in order to maximize water permeability. See Mingot col. 1, lines 1-20.

In regards to Claim 15 Mingot discloses the 1<sup>st</sup> layer comprises only particles in the 10/14 range. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the water-permeable roadway of Kim et al. with a 1<sup>st</sup> layer of 10/14 size aggregate, as taught by Mingot, in order to maximize the void content of the pavement.

3. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. in view of Mingot, as applied to claim 11 above, and further in view of Hendriks et al. # 5,910,212.

Kim et al. in view of Mingot discloses essentially all that is claimed, except for the void content of the roadway. However, Hendriks et al. discloses an open graded asphalt composition having a void content ranging between 20-30%. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the water permeable roadway of Kim et al. in view of Mingot, with a void content in the range of 20-30% in order to maximize the water draining characteristics of the roadway.

With respect to claim 19 although none of the references disclose the relationship between void size in the different layers; Mingot teaches it is desirable to provide a large discontinuity in particle size of the aggregates in each layer. Consequently the average size of the voids in each layer will be different i.e. larger stones only permit small size

voids to form between said aggregates, likewise, smaller aggregates permit larger size voids to form with respect to the voids of the other layer. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the water-permeable roadway of Kim et al. with a plurality of layers having different sized aggregates and voids, as reasonably suggested by Mingot, in order to maximize permeability. See Mingot col. 1, col. 2, line 45-col. 3, line 65.

4. Claims 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. in view of Mingot, as applied to claim 11 above, and further in view of Langumier et al. # 5,256,712.

Kim et al. in view of Mingot discloses essentially all that is claimed, except for the type of bitumen binder used. However, Langumier et al. discloses a road quality bitumen comprising: a bituminous binder; at least 3% elastomer, such as (SBS) and at least 30% bitumen containing less than 6% of saturated products and less than 7% of asphaltenes. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the water permeable roadway of Kim et al. in view of Mingot, with a bituminous composition, as taught by Langumier et al. in order to maximize the storage ability of the elastomeric bitumen composition. See Langumier et al. col. 2, line 45-col. 3, line 60

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In regards to Claims 26, 27 Kim et al. discloses the water-permeable roadway can be formed in a plurality of layers ranging from .05-3 cm for a top layer and .55-5.5 cm for a lower layer.

5. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. # 5,432,213 in view of Ulrich et al. # 5,735,634.

Kim et al. discloses a process for providing a road surface with a draining bituminous blanket comprising at least 2 layers. Said 1<sup>st</sup> layer comprising a modified bituminous binder, aggregate having a 1<sup>st</sup> particle size and between 2-20% of an inorganic filler all by weight. Said 2<sup>nd</sup> layer comprising a bituminous binder and an aggregate having a particle size distribution larger than the 1<sup>st</sup> layer. What Kim et al. does not disclose is how the roadway is formed. However, Ulrich et al. discloses a road finisher comprising a plurality of premix hoppers 5, 6 for receiving an different types of asphaltic concrete; a plurality of conveyors (8, 9) for separately providing different types of asphaltic concrete to a roadway to be paved, such that one type of asphaltic concrete forms a 1<sup>st</sup> layer and the other of said asphaltic concretes forms a 2<sup>nd</sup> layer on top of said 1<sup>st</sup> layer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to provide the process of making a water permeable roadway of Kim et al. with a road finisher capable of spreading 2 layers of paving material onto a roadway, as taught by Ulrich et al., in order to pave a multi-layer roadway in 1 pass.

6. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. in view of Ulrich et al., as applied to claim 28 above, and further in view of Hendriks et al. # 5,910,212.

Kim et al. in view of Ulrich et al. discloses essentially all that is claimed, except for the temperature at which the paving materials are applied to the roadway. However, Hendriks et al. teaches an open graded asphalt that is applied to a roadway at a temperature less than 140 degrees Celsius. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to form the roadway of Kim et al. in view of Ulrich et al. at a temperature less than 140 degrees Celsius, in order to reduce toxic emissions and the cost of maintaining the paving material temperature.

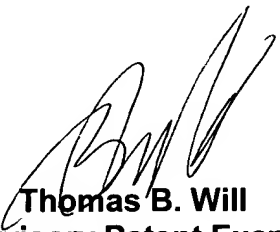
### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Smajda # 4,256,734 discloses a method for making road surface coatings. Matsuno et al. # 5,109,041 discloses a method for asphalt production. Graf # 5,114,483 discloses an open-graded asphalt. Bredael # 5,558,703 discloses a bituminous composition. Masuda et al. # 5,558,704 discloses an asphalt composition. Ohtsuka et al. # 5,925,695 discloses an asphalt emulsion. Lopez # 6,380,284 discloses a method for continuous asphalt production.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Addie whose telephone number is (703) 305-0135. The examiner can normally be reached on Monday-Friday from 8:00 am to 2:00 pm, 6-8 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703) 308-3870. The fax phone number for this Group is (703) 305-8623.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.



**Thomas B. Will**  
**Supervisory Patent Examiner**  
**Group 3600**

**RWA**  
**9/30/2002**